1131-13-217      **Hailong Dao\*** (`hdao@ku.edu`) and **Alessandro De Stefani** (`ads@kth.se`). *When is the product of ideals Golod?* Preliminary report.

Let $I, J$ be homogenous ideal in a polynomial ring $R$ over a field. It has been asked whether the product $IJ$ is always Golod. A proof was given for $I, J$ monomial by Faridi-Welker but it rests on an incorrect characterization of Golodness. Finally De Stefani gave a counter-example for $I, J$ monomial ideals in 4 variables. In this work we study necessary and sufficient conditions for Golodness using ideal-theoretic conditions. In particular we show that the product of two monomial ideals in 3 variables is Golod. (Received July 15, 2017)